

Friday, 2 October 2020

City of Burlington
426 Brant Street
Burlington Ontario L7R 3Z6

Attn: Danika Guppy
Heritage Planner

RE: Memorandum - 2093, 2097 & 2101 Old Lakeshore Road and 2096 & 2100 Lakeshore Road: Revisions to Heritage Impact Assessment (August 22, 2019)

Dear Danika,

We received comments in a Memorandum dated November 5, 2019 regarding the Heritage Impact Assessment prepared by GBCA for the above noted application. This memorandum will address two items. Firstly, it intends to clarify details requested on the proposed strategies employed for the commemoration of the Cole Mortimer House (2093 Old Lakeshore Road). Secondly, it will describe updated heritage impacts to the listed building at 2101 Old Lakeshore road (Chrysler Carriage House) on account of modifications to below-ground parking. Further details can be found in the current Official Plans & Zoning By-law Amendment reapplication (September 30, 2020).

1) Cole Mortimer (2093 Old Lakeshore Road):

The Cole-Mortimer House, while having some interest as a vernacular homestead, is ultimately proposed to be removed from the subject site. In line with Heritage Burlington's comments, staff have requested further details regarding a mitigation strategy and whether other options were considered to conserve the cultural heritage value of the building.

To this end, the design team has undertaken additional studies to evaluate the impact of relocating the building to an alternative location on the site. The only available location on the subject site would be the 20m landscaped POPS that extends from the north of the site to Old Lakeshore Street. This area has been designated as part of the 'Martha Street View Corridor', which establishes a sight line from Martha Street to Lake Ontario. Relocating the building to this location would obscure views to the water, and undermine the intended purpose of this view corridor.

In order to acknowledge the Cole Mortimer house and its connections to the early settlement of Burlington, we recommend erecting a commemorative plaque to the POPS that will incorporate historical information conveying the heritage significance of the site. This will provide an opportunity to highlight the conserved built heritage resources on the site (Chrysler Carriage House) and draw awareness to the history of the general area through the use of text, historical maps and fire insurance plans.

2) The Chrysler Carriage House (2101 Old Lakeshore Road):

The intended strategy will remain the same as proposed in GBCA's Heritage Impact Statement (dated August 22, 2019). The existing building will remain on the site and become integrated with the proposed development.

Since receiving Heritage and Planning comments, the design team has made adjustments to technical and design strategies in order to meet city guidelines for parking space. As a result, the impact to identified Heritage Properties (2101 Old Lakeshore Road) has changed as a result of alterations to the excavation strategy.

Proposed Excavation:

The proposed parking levels will encroach below the existing stone foundation of the Chrysler Carriage House. As excavation is proposed for the entire site, strategies to conserve built form during construction will be explored. A structural engineer, Read Jones Christoffersen Ltd. (RJC), has been engaged to evaluate these options.

In their opinion, excavation will present a risk to the structural integrity of the building. This impact will be greatly mitigated with careful and appropriate measures, which include temporary relocation on the property or retention elsewhere outside of the proposed development site.

Appendix I includes four high-level scenarios for retention as prepared by RJC. This study evaluates the feasibility of temporary relocation (Options 1, 2a, 2b) or retaining in-situ (Option 3) during construction, with the overall goal being to ensure that excavation does not present undue risks to the heritage fabric. Ultimately, once a structurally sound and economically feasible strategy has been determined, the technical issues related to either relocation or in-situ stabilization will require a more detailed Conservation Plan.

Conservation Plan: This would be packaged as a report and would include a description of the detailed research completed. This may include historic photographs, on-site testing and physical examination, paint colour research, test cleaning patches for removal of paint from masonry, etc. The Plan will also include a detailed description of the means of securing the existing building during construction.

GBCA can provide examples of and references for successful relocations of heritage buildings that we have previously been involved with, such as the relocation of the Cooper Mansion on Sherbourne Street in Toronto. This work was undertaken by Laurie McCulloch Building Moving who we intend to consult should relocation be the agreed upon strategy.

Technical Issues of Relocation:

Moving heritage buildings, if not well considered, could result in physical endangerment of the resource. In any project that proposes relocation of heritage buildings, it is important that a detailed feasibility study be undertaken and that this study be approved by a structural engineer. The best method for moving would be determined by a qualified moving contractor.

Prior to any move the rear addition which holds no heritage value will be removed. Temporary enclosure would have to be provided to protect any portion of the existing building which will become exposed as a result of the demolition. Security and protection strategies for the vacant building would be required.

Restoration of the heritage building would be carried out after it is moved to its final location.

The research and background information from the earlier HIA will inform the drawings and specifications prepared for the restoration of the building. These documents will be included in the Conservation Plan report for review by Heritage Staff and will be the same documents submitted for the Building Permit application.

We trust this will satisfy your requirements at this time, and would welcome the opportunity to further discuss the material above.

Sincerely,
Goldsmith Borgal & Company Ltd. Architects

A handwritten signature in black ink, appearing to read 'R Brough', written in a cursive, flowing style.

Robert Brough, OAA, MRAIC
Vice President

APPENDIX I

Structural Assessment Report: Heritage Retention Options
(Read Jones Christoffersen Ltd.)



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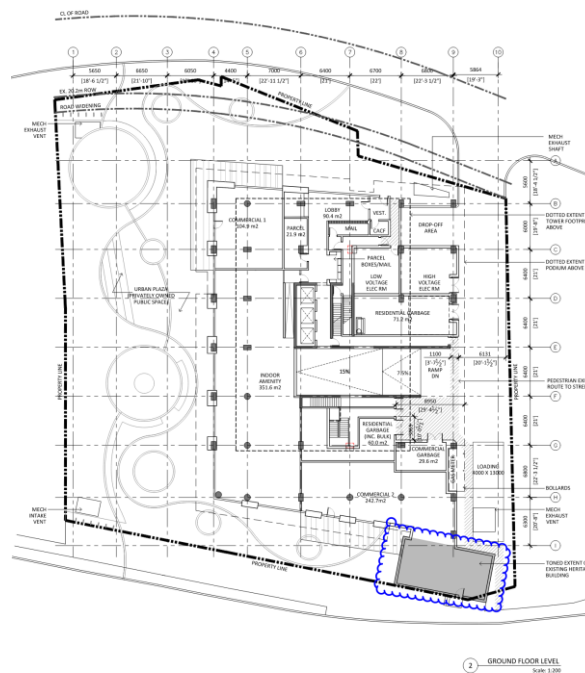
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1.0 INTRODUCTION

This structural assessment report is intended to provide high level order of magnitude framing summaries to aid in preliminary level coordination and costing for development of the pro forma. This report is based on various coordination effort that have taken place to date, and recent meetings with Core Developments, Vanmar Developments and JCI studio. Only high level analytical designs have been undertaken as part of this brief with most values provided based on past development works of similar structural type and magnitude. This document supersedes any previously circulated correspondence or sketches.

2.0 PROJECT DESCRIPTION

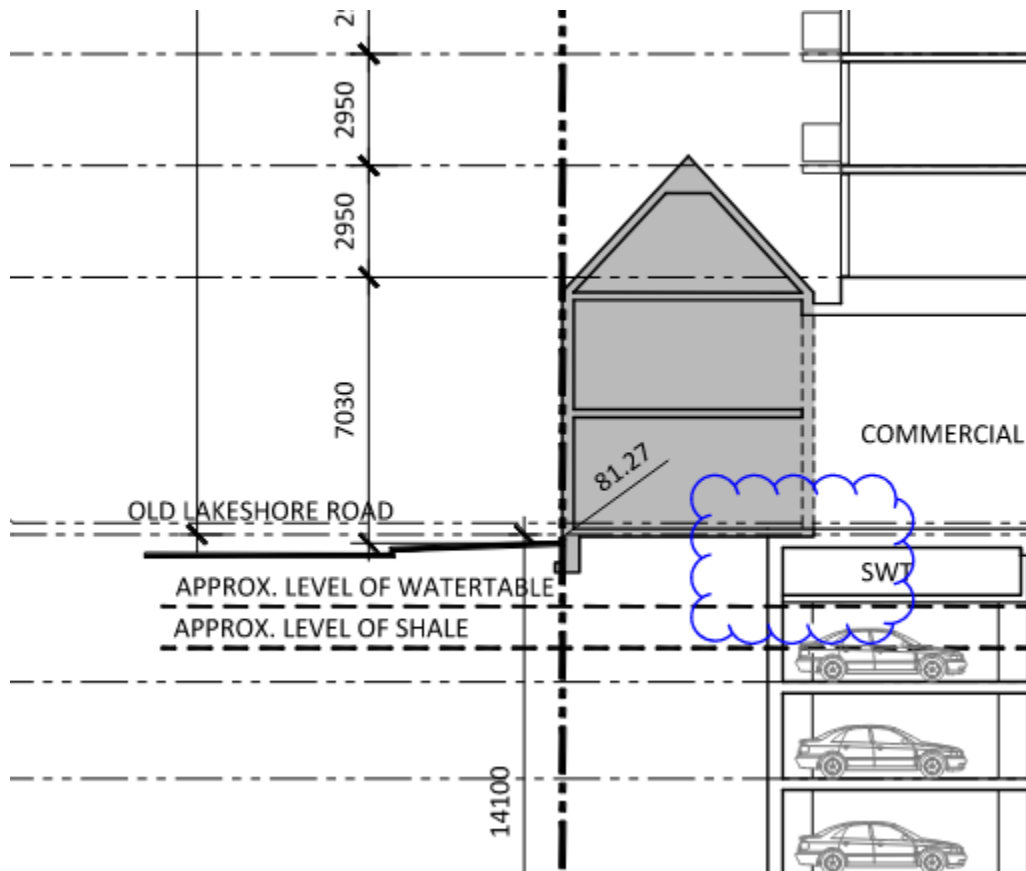
Core development is planning to build a 27 story residential tower in Burlington Ontario. The Tower is planning 5 levels of underground Parking that extend most of the site perimeter. Per most recent August 20, 2020 drawings prepared by JCI studio, our understanding of the current Residential Tower is that the proposed underground structure is encroaching into an Existing Heritage structure perimeter. The Heritage structure is a 2 storey Brick façade and stick frame structure supported on a stone foundation that has been designated as fully heritage therefore a façade retention strategy is not permitted. This report studies the options to effectively support the Heritage house in order to successfully construct the proposed development. Picture 1 below shows the proposed site plan with the heritage house location (clouded in Blue)



Picture No.1 Heritage House location shown on Ground Floor.

3.0 GENERAL DESCRIPTION OF STRUCTURAL AND CONSTRUCTION CHALLENGES.

The architectural teams has obtain information from the City of Burlington (authority having jurisdiction) that an increase parking ratio is required in the development and therefore the need for the increase of the overall parking area and levels in order to meet the city guidelines. With the propose increase of the underground parking area the structure will partially undermine the Heritage house and therefore effective structural solutions to support the Heritage structure and allow for the construction of the condo developments are study in this report. Picture 2 below shows the section of the Heritage Structure and the underground.



Picture No.2 Heritage House and proposed parking Garage structure.

3.1 Heritage Retention options

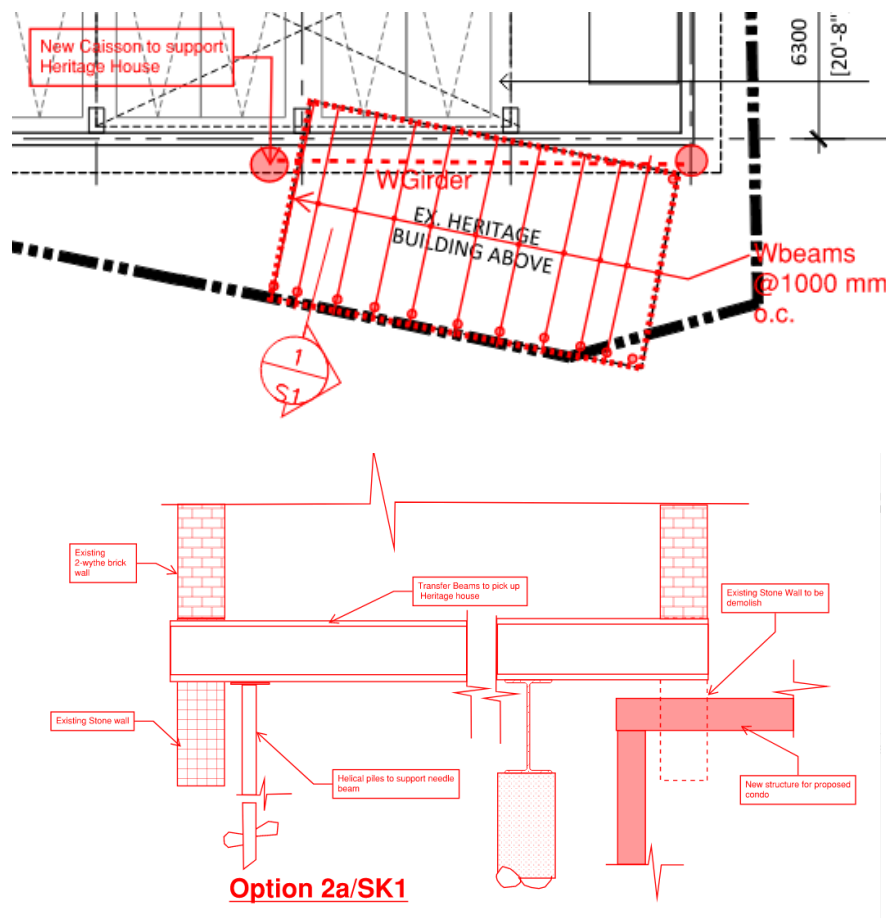
.1 Option #1 - House relocation

This proposal effectively considers the relocation of the house to a near/adjacent property or obtaining the allowances for the city of Burlington to partially relocate the Heritage structure over the old lake shore road on a temporary basis (estimated at 1 year or more) to allow for the unobstructed construction of the proposed development. While the temporary relocation may bring

a negative economic impact to the proforma it opens the door for the Heritage House to be fully relocated anywhere in the site allowing for a better integration of the proposed development. Items to consider for this option besides the relocation cost, are any land rent required to allow for temporary placement of the structure, any movers framing like needle beam system that may be required to remain in place until the heritage house reaches its final location, probable damage to the Heritage structure due to the relocation efforts.

.2 Option #2a - Retention strategy outside proposed development

This option is based on creating a structural frame that will be constructed outside the proposed parking structure. By providing needling beams that will slide below the existing framing and supported at the south end with helical piles and at the north end with a main girder that needs to be supported by new caissons, the retention structure cantilevers over the overlap area of the Heritage and the new construction avoiding any interference between them. Once the GF for the main development is constructed the heritage structure will be partially supported between the garage roof and the helical piles (making the system a permanent structure requirement).

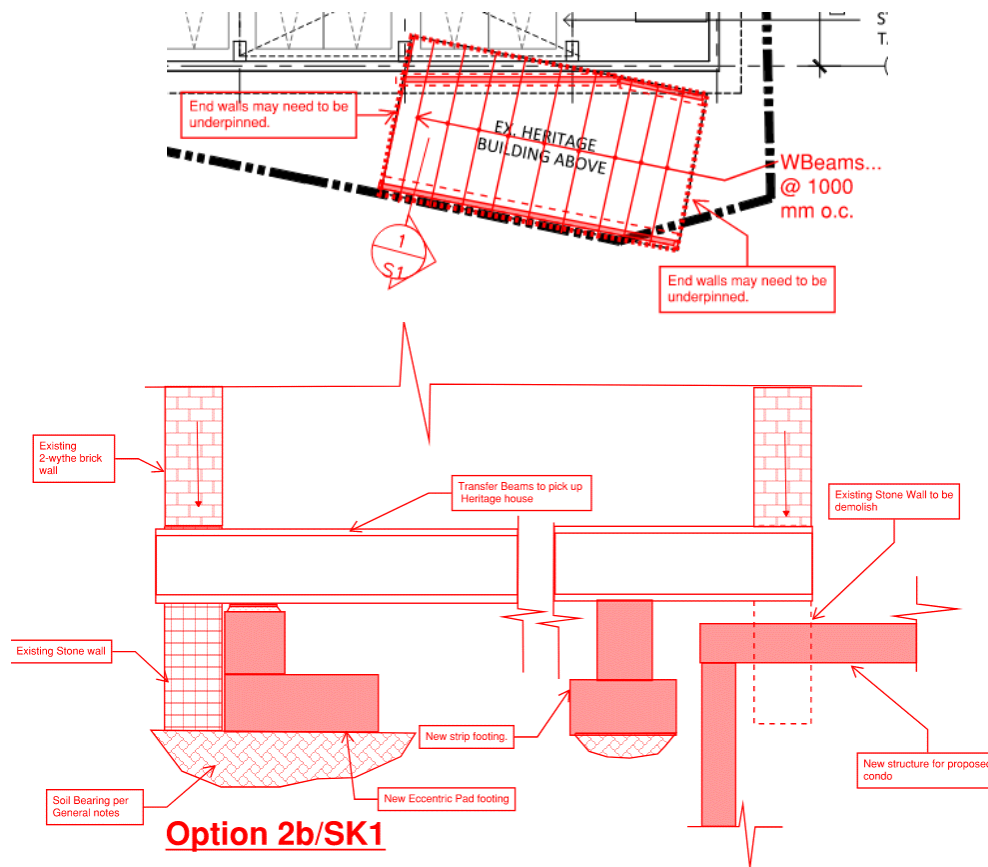


Picture No.3 - Heritage House retention strategy option 2a.

Additional information/coordination with the shoring engineer is required to ensure shoring elements may be able to be constructed with horizontal elements (whalers) and rakers/tiebacks can be provided that sufficiently support the added push of the increase spacing between the main piles. Picture No. 3 above shows the plan view of the propose solution and the section. For an estimated framing element sizes, please see appendix A.

.3 Option #2b - Retention strategy outside proposed development.

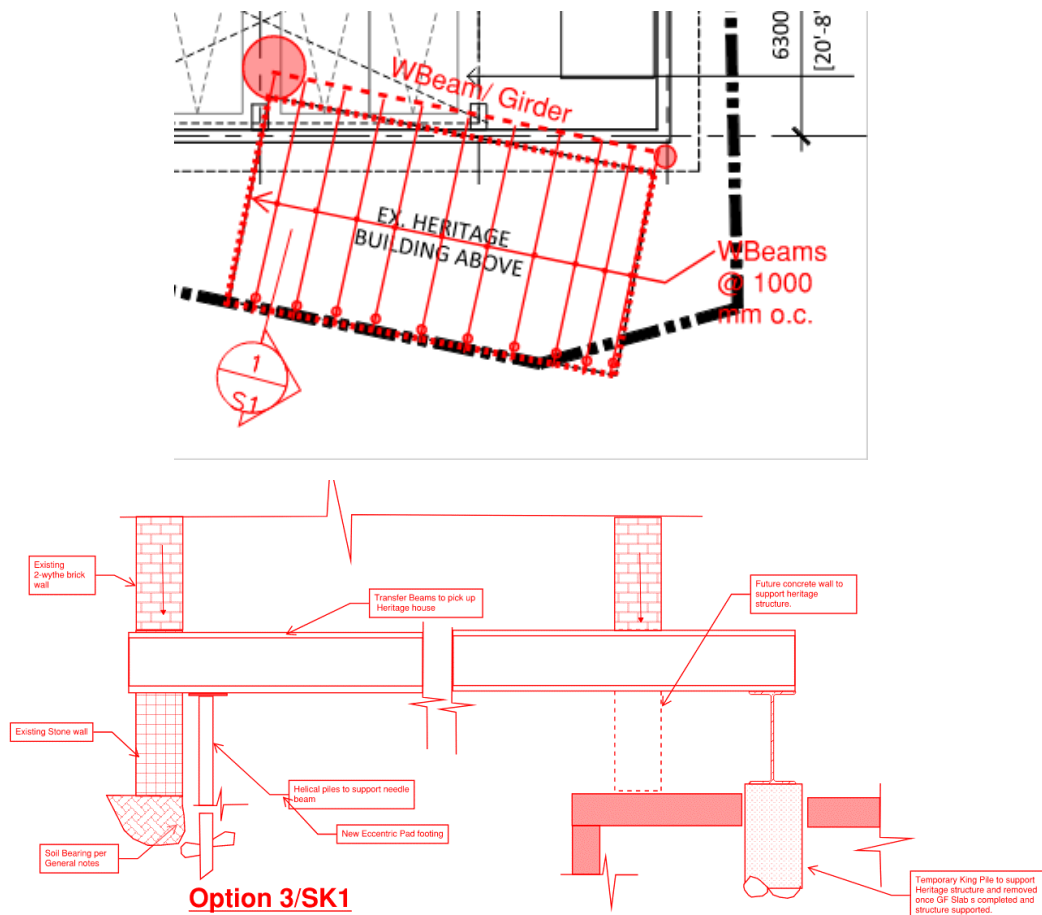
This option is similar to option 2a but utilizes new strip and spread footings to support the structural steel grillage (needle beams). The footings will need to be pour in a segmental order (due to the construction challenges of working in tight quarters) to support the new structure. Careful construction is required to ensure that the segments are loaded in a manner that differential settlement can be avoided or reduced as much as possible. Currently the Geotechnical report does not have any settlement and bearing values for this elevation and therefore this options needs to be further vetted by the Geotechnical consultant. Also, the shoring engineer should consider that the strip footing system will impose surcharge into the shoring system that will need to be carefully restrain to avoid any undue deformation. Picture No. 4 below shows the plan view and section described here.



Picture No.4 - Heritage House retention strategy option 2b.

.4 Option 3 – Retention strategy within the proposed development

The option here utilizes a framing system that is based on extending the needle beams beyond the heritage house perimeter to be supported on a main girder system and allow for the installation of a King Pile within the proposed development boundaries. The King pile will be a caisson/concrete pile with a tip elevation beyond the development BOF elevation to ensure that enough embedment will be provided to restrain the caisson/pile from any further movement. The excavation of the site can proceed accordingly with hand techniques (or low impact equipment) around the king pile as this element becomes a slender column as the excavation of the site progresses. The south ends of the beams will be supported by Helical piers (or rock anchors) similar to options 2a and 2b. Once the Ground floor has been constructed, a new foundation system (concrete curbs) to replace the main girder can be constructed and the house can rest on top of the concrete slab, at this point the King pile can be removed and the section of the slab can be infill per typical construction techniques. Picture No 4 below shows the section and plan of the proposed option.



Picture No.5 - Heritage House retention strategy option 3.



4.0 CONCLUSION

This report provides 4 options for the Heritage structure located at the current site. The option provides solutions that need to be carefully study and their economic effects weighted for the overall project proforma. Additional consultant information form the geotechnical and Shoring consultant is needed to fully comprehend the effects of each options.

It is our opinion that the provided solutions can successfully support the Heritage structure and provide the development and construction team a template for the challenges presented by the increase underground parking structure. Appendix A provides initial member sizes that meet the load and deformation demand and can be used for a more detailed costing exercise.

We trust this document is suitable for concept evaluation, framing discussion, consultant engagement and development purposes as required. Please let us know if any questions or comments.

Yours truly,

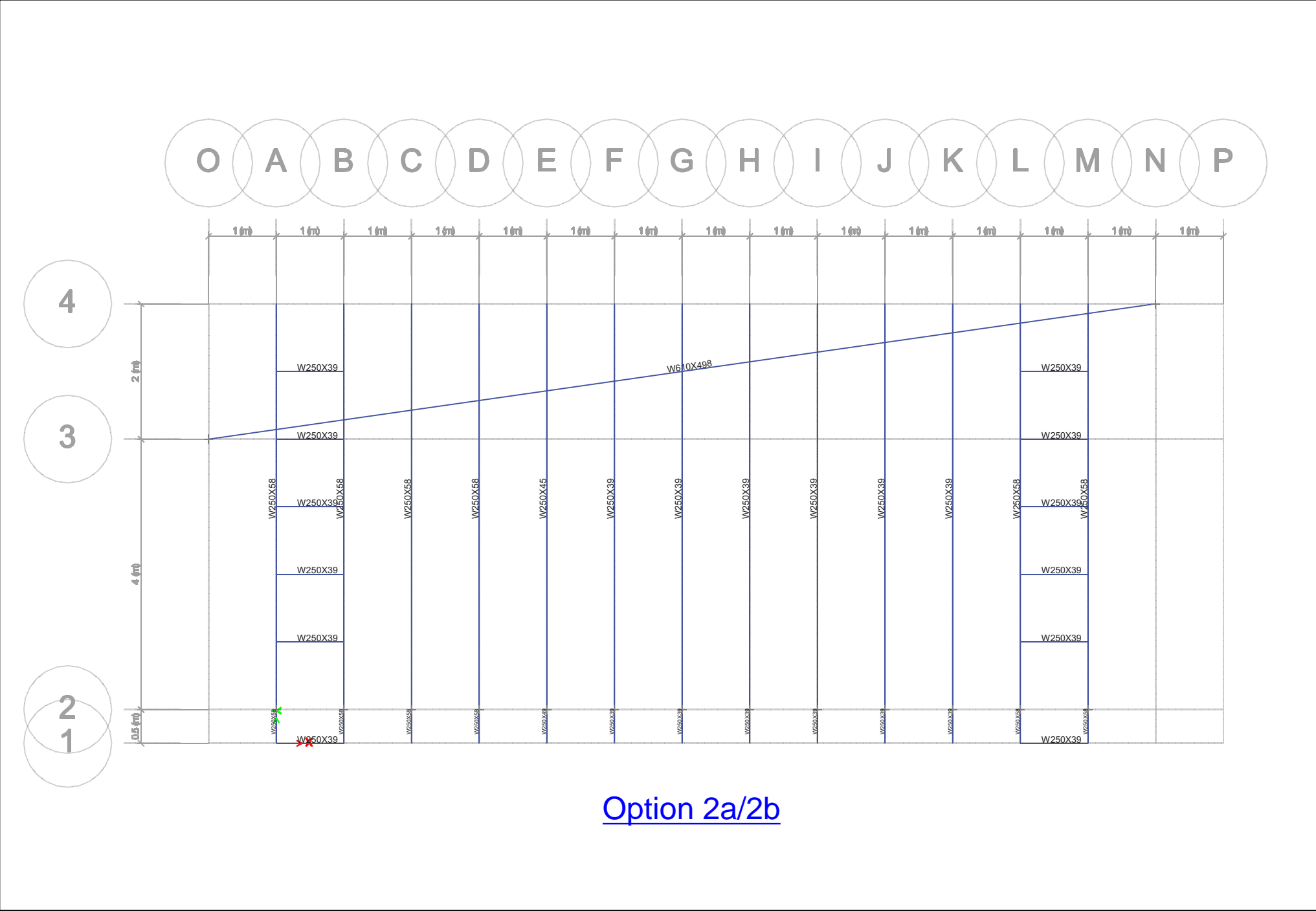
Read Jones Christoffersen Ltd.

A handwritten signature in black ink that reads 'J Polanco'.

Jose Polanco, P.Eng., PE, SE
Project Engineer
Structural Engineering



APPENDIX A





Option 3